In the claims:

1. (Original) A medical device for implantation in a vessel, comprising at least one anastomotic member at least partially interposing a non-woven liner of electrospun fibers and a non-woven cover of electrospun fibers;

said at least one anastomotic member being designed for engaging at least one end of the medical device to a wall of the vessel upon implantation of the medical device within the vessel.

2. (Original) The device of claim 1, wherein said at least one anastomotic member protrudes out of said non-woven cover.

3. (Original) The device of claim 1, wherein said at least one anastomotic member is flush with said non-woven cover.

4-5. (Canceled)

6. (Original) The device of claim 1, wherein said at least one anastomotic member comprises a plurality of hooks for connecting the device to said wall of the vessel.

7. (Original) The device of claim 1, further comprising a ring-shaped protuberance designed and constructed to prevent the device from falling into a lumen of the vessel.

8-14. (Canceled)

15. (Original) The device of claim 1, forming a furcating structure having a plurality of tubular branches.

16-26. (Canceled)

27. (Original) The device of claim 1, further comprising at least one adhesive layer for adhering at least two of: said non-woven liner, said non-woven cover and said at least one anastomotic member.

28-30. (Canceled)

31. (Original) The device of claim 1, wherein said electrospun fibers of said non-woven liner and/or said non-woven cover are aligned at a predetermined orientation relative to a longitudinal axis of the device.

32. (Original) The device of claim 1, wherein said electrospun fibers of said non-woven liner and/or said non-woven cover are randomly aligned.

33. (Original) The device of claim 1, wherein at least a portion of said electrospun fibers of said non-woven liner and/or said non-woven cover are aligned substantially along a circumferential direction of said non-woven liner and/or said non-woven cover.

34. (Original) The device of claim 1, wherein at least one of said non-woven liner and said non-woven cover comprises at least one medicament incorporated therein, for delivery of said at least one medicament into a body vasculature during or after implantation of the device within said body vasculature.

35-39. (Canceled)

40. (Original) A method of manufacturing a medical device for implantation in a vessel, the method comprising:

providing at least one anastomotic member designed for engaging a wall of the vessel;

electrospinning a first liquefied polymer on a precipitation electrode, thereby providing a non-woven liner of electrospun fibers;

mounting said at least one anastomotic member onto said precipitation electrode; and

electrospinning a second liquefied polymer on at least one of: said precipitation electrode, said non-woven liner and said at least one anastomotic member, so as to provide a non-woven cover of electrospun fibers.

41. (Original) The method of claim 40, wherein said electrospinning said second liquefied polymer is done such that said at least one anastomotic member protrudes out of said non-woven cover.

42. (Original) The method of claim 40, wherein said electrospinning said second liquefied polymer is done such that said at least one anastomotic member is flush with said non-woven cover.

43-46. (Canceled)

47. (Original) The method of claim 41, further comprising mounting a thrust ring onto said non-woven cover, wherein said thrust ring is designed and constructed for thrusting said pressing ring.

48. (Canceled)

49. (Original) The method of claim 40, further comprising repeating said electrospinning of said first and said second liquefied polymers for different orientations of said precipitation electrode, so as to form a furcating structure having a plurality of tubular branches.

50-60. (Canceled)

61. (Original) The method of claim 40, further comprising applying pressure on at least one of said non-woven liner, said non-woven cover and said at least one anastomotic member.

62. (Original) The method of claim 40, further comprising electrospinning a third liquefied polymer prior to said mounting of said anastomotic

member, wherein a boiling point of said third liquefied polymer is higher than a boiling point of said first liquefied polymer.

63. (Original) The method of claim 40, further comprising electrospinning a fourth liquefied polymer prior to said electrospinning of said second liquefied polymer, wherein a boiling point of said fourth liquefied polymer is higher than a boiling point of said second liquefied polymer.

64. (Original) The method of claim 40, further comprising applying at least one adhesive layer on at least one of said non-woven liner and said at least one anastomotic member.

65-72. (Canceled)

73. (Original) The method of claim 40, wherein said electrospun fibers of said non-woven liner and/or said non-woven cover are aligned at a predetermined orientation relative to a longitudinal axis of the device.

74. (Original) The method of claim 40, wherein said electrospun fibers of said non-woven liner and/or said non-woven cover are randomly aligned.

75. (Original) The method of claim 40, wherein at least a portion of said electrospun fibers of said non-woven liner and/or said non-woven cover are aligned substantially along a circumferential direction of said non-woven liner and/or said non-woven cover.

76. (Original) The method of claim 40, wherein at least one of said non-woven liner and said non-woven cover comprises at least one medicament incorporated therein, for delivery of said at least one medicament into a body vasculature during or after implantation of the device within said body vasculature.

77-83. (Canceled)

84. (Original) The method of claim 40, further comprising electrospinning an additional liquefied polymer on at least one of: said precipitation electrode, said non-woven liner, said at least one anastomotic member and said non-woven liner.

85-114. (Canceled)

115. (Original) A kit for performing an end-to-side anastomosis procedure, comprising:

a medical device for implantation in a vessel, said medical device comprising at least one anastomotic member at least partially interposing a non-woven liner of electrospun fibers and a non-woven cover of electrospun fibers, wherein said at least one anastomotic member is designed for engaging at least one end of the medical device to a wall of said vessel upon implantation of said medical device within said vessel; and

an accessory device for forming an opening in said wall of said vessel, said accessory device comprising a tubular encapsulation designed and constructed for receiving said medical device, a cutting member integrated with or attached to an end of said tubular encapsulation and capable of forming an opening in said wall of said vessel, and a vacuum channel for channeling efflux of biological material from said tubular encapsulation.

116-119. (Canceled)

120. (Original) The kit of claim 115, wherein said at least one anastomotic member comprises a plurality of hooks for connecting the device to said wall of the vessel.

121. (Original) The kit of claim 115, wherein said medical device further comprises a ring-shaped protuberance designed and constructed to prevent the device from falling into a lumen of the vessel.

122-157. (Canceled)